

JULIA PERDRIAL

ASSOCIATE PROFESSOR OF GEOCHEMISTRY

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JULIA.PERDRIAL@UVM.EDU

EDUCATION

- 01/2008 **PhD in Physics, Chemistry and Biology of the Environment,**
Université Louis Pasteur, Strasbourg, France. Advisor: Prof. Laurence Warr
(CNRS-France, University of Greifswald, Germany). Hydration of swelling clays
and bacteria interaction - An experimental in-situ reaction study .
- 07/2004 **MS (Diploma) in Mineralogy, Geology and Geochemistry,**
Ruprecht Karls University of Heidelberg, Germany. Advisor: Laurence Warr. Low
temperature mineral alteration in fault zones of the Lizard Ophiolite Complex,

18. **Perdrial, J.N**, Sullivan PL, Dere A, West N (2020) Editorial: Critical Zone (CZ) Export to Streams as Indicator for CZ Structure and Function. *Frontiers in Earth Science*

FUNDING FULL LIST

- **GUND catalyst award, \$49,940.** 2022- *Intersections between the climate crises, environmental racism, and STEM education: co-creating culturally relevant teacher education in Jackson, MS* . **Lead-PI.**
- **NSF- Convergence accelerator, \$99,910.** 2022-2023 *“Conference: Water for a changing planet: Rethinking land use and water supply in the face of population growth and climate breakdown”.* **Co-PI.**
- **NSF- EAR, \$3,408,589** (UVM, total \$ 4,684,484). 2020-2025 *“Collaborative Research: Network Cluster: Using Big Data approaches to assess ecohydrological resilience across scales”.* This award is a cooperative agreement and each year we receive funding if our progress is satisfactory **\$667,508 in 2021, Lead-PI.**
- **NSF-EAR, \$54, 717** Supplement to *subaward “Collaborative Research: Network Cluster: Using Big Data approaches to assess ecohydrological resilience across scales”*, **Lead-PI.**
- **NSF- EAR, \$3,199,116** (total intended award), \$622,456 (obligated amount for 2020). *“Collaborative Research: Network Cluster: Using Big Data approaches to assess ecohydrological resilience across scales”* **Lead-PI.**
- **Vermont Water Center, \$62,562.** *“Identifying drivers of change in denitrification capacity of riparian soils during the spring snowmelt/runoff period”.* **Co-PI.** This research proposes to investigate the role of microorganisms in liberating algal bloom-causing nutrients from soils.
- **NSF-SAVI** (Science Across Virtual Institutes) \$10,000. *“Big data exploration of water quality and Critical Zone (CZ) science: A one-*

- NSF-

2019-2021: Caitlin Bristol, M.S.
2018-2020: Thomas Adler, M.S.
2017-2021: Brittany Lancellotti (

- Mackenzie E. Patrick, PhD, University of Newfoundland (Canada), invited external PhD examiner (2023).
- Sofía López Urzúa, PhD, Université Paris, Institut de physique du globe de Paris (France), invited external PhD examiner (2023).
- Suffiyan Safdar, PhD, Department of Civil and Environmental Engineering (2023).
- Isabella Bennett, PhD, Rubenstein School of Environment and Natural Resources (2021-2025).
- Sonya Vogel, MS, Department of Geology (2021-2022).
- Victoria Treto, MS, Department of Geology (2021-2022).
- Jenny Bower, PhD, Department of Plant and Soil Science (2019-2023).
- Lindsey Carlson, PhD, Rubenstein School of Environment and Natural Resources (2021-2025).
- Julia Petty (undergraduate honors thesis), Rubenstein School of Environment and Natural Resources (2021).
- Jenny Bower, PhD, Department of Plant and Soil Science (2019-2023).
- Jillian Sarazen, MS, Department of Plant and Soil Science (2019-2020).
- Frank Piasecki (undergraduate honors thesis), Department of Geography (2019).
- Sophie Ryan (undergraduate honors thesis), Department of Geography (2018).
- Emma Cronin (undergraduate honors thesis), Department of Biology (2017).
- Brendan (Guangyu) Zhu, PhD, Department of Engineering, (2016-2020).
- Keegan Griffith, MS, Department of Plant and Soil Science (2016-2017).
- Meg Legrand, MS, Department of Geology (2016-2018).
- Austin Wilkes, MS, Department of Geology (2016-2018).
- Alison Denn, MS, Department of Geology, (2014-2016).
- Braden Rosenberg, MS, Department of Geology (2013-2015).
- Robert Caulk, MS, Department of Environmental and Civil Engineering (2013-2015).
- Adam Noel, PhD, Rubenstein School of Environment and Natural Resources (2012-2021).
- Kristen Underwood, PhD, Department of Environmental and Civil Engineering (2012-2018).
- Stephanie Juice, PhD, Rubenstein School of Environment and Natural Resources (2012-2019).

CONFERENCE ABSTRACTS

Note: graduate students = ***bold italics***, undergraduate students = *italics*.

2023

- *Kerins, D., Sadayappan, K., Zhi, W., Sullivan, P.L., Williams, K.H., CarrTGeo-9(, CF5 9.96 T12 792 reW*nBTF5 9.96*

- Boyer, E.W., Aronson, E.L., Barnard, H.R., Holbrook, S., Jin, L., Kumar, P., McCay, D., Micheal, H., Munroe, J.S., **Perdrial, J.N.**, Read, J.S., Welty, C., CZNet: the United States Critical Zone Collaborative Network. AGU Fall meeting. San Francisco, CA 11-15 December 2023.
- **Perdrial, J.N.**,

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- **Caitlin Bristol, Thomas Adler, Lindsey Stinson, Bryan Stolzenburg, Kristen Underwood, Donna, M. Rizzo, Hang Wen, Li Li, Adrian Harpold, Gary Sterle, James B. Shanley and J. N. Perdrial, (2020).** Assessing the impact of acidification and recovery on dissolved organic carbon (DOC) mobilization from a snow dominated, forested headwater catchment. Ecological Society of America virtual meeting, August 3-6.
- **Bryn Stewart, Hang Wen, James B. Shanley, J. N. Perdrial, Thomas Adler, Adrian Harpold, Donna M. Rizzo, Gary Sterle, Kristen Underwood and Li Li, (2020)** Distinct solute export patterns shaped by shallow and deep water chemistry contrasts. Ecological Society of America virtual meeting, August 3-6.

2019

- **Perdrial J, Landsman-Gerjoi M, Lancellotti B, Seybold E, Kincaid D, Adair C, Schroth A & Wymore A. (2019).** Dissolved Organic Matter Biodegradation: How Substrate, Microbial Activity and Environmental Conditions Converge. Goldschmidt Conference, Barcelona, August 18-23, poster.
- Seybold, EC, Kincaid, DW, Lancellotti, B, Adair, CE, **Perdrial, JN**, Schroth, AW. Effects of rain on snow events on runoff generation and nutrient export from forested and agricultural catchments in northern Vermont. Society for Freshwater Science Annual Meeting (online).
- Bierman P, Schmidt A, Yvelice Sibello Hernández R, Campbell M, Alejandro Cartas AGUILA4 H, Bolaños Alvarez Y, Guillén Arruebarrena A, Dethier D, Dix M, Massey-Bierman M, García Moya A, **Perdrial J**, Racela J, Corbett L & Alonso-Hernández C (2019). First Chemical and Isotopic Denudation Rate Estimates for Central Cuban Drainage Basins. Goldschmidt Conference, Barcelona, August 18-23, poster.
- Dix, M., Hecht, Z., Bermudez, E. A., Schmidt, A. H., Bierman, P. R., Campbell, M. K., Dethier, D. P., Racela, J., **Perdrial, J.**, Massey-Bierman, M. E., Sibello Hernández, R. Y., Cartas Aguila, H. A., Guillén Arruebarrena, A., García Moya, A., and Alonso-

- **Pohmann, M., Perdrial, J.N., Prescott-Smith, J., Amistadi, M.K., Troch, P., Chorover, J. (2012).** Resolving dissolved vs. colloidal and particulate weathering product forms across the storm hydrograph. AGU, Fall Meeting 2012, December 3-7 (peer reviewed poster).

